

Abstract

A method is described for checking at least three sensors (191, 192, 193, 194, 195) which detect a measured quantity in the area of an internal combustion engine (100). A measure of the sensor signal (S1, S2, S3, S4, S5) of the particular sensor (191, 192, 193, 194, 195) to be checked is compared to a reference signal (M, S1, S2, S3, S4, S5) which is obtained from at least one part of the sensor signals (S1, S2, S3, S4, S5) of the sensors (191, 192, 193, 194, 195) to be checked. A sensor (191, 192, 193, 194, 195) is recognized as defective on the basis of a comparison of the measure for the sensor signal (S1, S2, S3, S4, S5) with the reference signal (M, S1, S2, S3, S4, S5). The reference signal (M, S1, S2, S3, S4, S5) is formed, for example, from a mean value (M) of a measure of the sensor signals (S1, S2, S3, S4, S5) of at least one part of the sensors (191, 192, 193, 194, 195) to be checked, the individual sensor signals (S1, S2, S3, S4, S5) being weighted using correction factors (K1, K2, K3, K4, K5) in forming the mean value. The sensors (191, 192, 193, 194, 195) are temperature sensors or pressure sensors, for example, which may be situated in an intake area (105) of the internal combustion engine (100), on the internal combustion engine (100) itself, in an exhaust area (110), and/or in an exhaust gas treatment system (115).